

ADH8 (K-14): sc-87545

BACKGROUND

The alcohol dehydrogenase family of proteins metabolize a wide variety of substrates, including retinol, hydroxysteroids, ethanol, aliphatic alcohols and lipid peroxidation products. ADH8, also known as ADHFE1 (alcohol dehydrogenase, iron containing, 1) or HOT, is a 467 amino acid protein that belongs to the iron-containing alcohol dehydrogenase family and localizes to the mitochondrion. Expressed specifically in adult liver, ADH8 functions to catalyze the cofactor-independent oxidation of γ -hydroxybutyrate to succinic semialdehyde, a reaction that is coupled to the reduction of 2-ketoglutarate to D-2-hydroxyglutarate and occurs at an optimal pH of 7.5. Succinic semialdehyde can then be converted to succinic acid which is used for energy production in the Krebs cycle. Four isoforms of ADH8 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ADHFE1 (human) mapping to 8q13.1; Adhfe1 (mouse) mapping to 1 A2.

SOURCE

ADH8 (K-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ADH8 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87545 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADH8 (K-14) is recommended for detection of ADH8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ADH family members.

ADH8 (K-14) is also recommended for detection of ADH8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ADH8 siRNA (h): sc-77632, ADH8 siRNA (m): sc-140882, ADH8 shRNA Plasmid (h): sc-77632-SH, ADH8 shRNA Plasmid (m): sc-140882-SH, ADH8 shRNA (h) Lentiviral Particles: sc-77632-V and ADH8 shRNA (m) Lentiviral Particles: sc-140882-V.

Molecular Weight of ADH8: 50 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.